

ABSTRACT OF THE DISCLOSURE

In one embodiment of the invention, a Peer-to-Peer (P2P) subsystem includes a cache of a current peer and a peer locator. The current peer is in a current ring at a current level. The cache stores information of ring peers within the current ring. The current ring is part of a hierarchical ring structure of P2P nodes. The hierarchical ring structure has at least one of a lower level and an upper level. The peer locator locates a target peer in the cache in response to a request.